

dans l'intoxication par les anticholinestérases. Cependant l'atropine et ses dérivés ne peuvent donner tout leur rendement qu'à condition d'être administrés en doses suffisantes qui malheureusement comportent des effets secondaires indésirables. Les auteurs de cet article ont cherché à contrecarrer ces effets par l'administration simultanée d'un vasopresseur à longue durée. On donna 1.5 mg. de sulfate d'atropine par voie intramusculaire à 41 étudiants en médecine; les variations de tension artérielle, du pouls, de la respiration, de la dilatation pupillaire, du pouvoir d'accommodation et de la perception mentale furent comparées

à celles que l'on observa lorsque la même dose de sulfate d'atropine fut administrée en combinaison avec 5 mg. de bitartrate de métaraminol. On a également étudié une série de témoins qui n'avaient reçu qu'une solution stérile de sérum physiologique. L'addition de métaraminol a causée une élévation importante de la tension artérielle systolique et de la différentielle ainsi qu'une bradycardie dans l'heure qui suivit son administration. L'épreuve de perception intellectuelle a montré une légère amélioration lorsque le métaraminol fut ajouté à l'atropine mais cette différence ne possédait pas d'importance au niveau de 5%.

## GERIATRIC PSYCHIATRIC PATIENTS IN GENERAL HOSPITAL AND MENTAL HOSPITAL

T. F. WARD, M.D.,\* and H. F. ROSS, M.D.,\*  
Weyburn, Sask.

TO THE medical profession as a whole there are two main types of psychiatric facility available for the active treatment of their psychiatric geriatric patients. The first is connected with the larger general hospitals and consists usually of a 25-50 bed unit separated from the medical wards of the hospital. The other type, connected with the mental hospital, is a ward set aside for geriatric patients or perhaps even a separate geriatric building with capacities ranging from 15-20% of the total beds available. This study is an attempt at comparison of the patients admitted to two such institutions and the long-term results of their disease and treatment.

Such a comparison, it is hoped, will produce a twofold result, *viz.*, enable us to show the extent to which these facilities can be employed, and by a study of the problems and results achieved enable us to make some recommendations for their effective use.

### METHOD OF STUDY

The particular units chosen for this study are a 33-bed psychiatric unit in a general hospital and a 1500-bed mental hospital. Both are in the southern half of Saskatchewan and draw their patients from an area which has a population of some 450,000. Another general hospital unit of about 30 beds is the only other psychiatric in-patient facility conveniently available for this district.

These two units admitted a total of 191 geriatric patients during the period of the study, January-December, 1957. Fifty-four were admitted to the general hospital and 137 to the mental hospital. Transfers from other psychiatric institutions in the province or patients retaken from a mental hospital parole were not included in this total, but readmissions were.

It should be noted, however, that there is a slight overlap in the two facilities. Five patients (two men and three women) were admitted to mental hospital after having been treated in the psychiatric unit. No special attention was paid to this in the assessment of the study because of the small numbers involved.

This study is in natural sequence to one made at a general hospital psychiatric unit alone that reported the facilities available and results achieved with geriatric patients.<sup>1</sup>

The findings reported in the previous study were freely abstracted for our purposes to serve as the basis of comparison with the mental hospital, so that it was then only necessary to search the mental hospital records and obtain information identical with that of the earlier study. Thus a general picture of all the geriatric patients was obtained. These findings, which are listed in Table I, give us information on mean age and range, sex, diagnosis and mean length of stay.

To allow a statistical study of the findings it was decided to group the diagnostic material into broad clinical groupings corresponding as closely as possible to the previous study. Thus five groupings were made which included affective, psychoneurotic, organic, schizophrenic and an additional one made necessary by the presence in mental hospital of another class of patients: those suffering from senility and physical disease alone, with only a vague or controversial psychiatric diagnosis offered. The grouping, delirium, used in the previous study was not found to be satisfactory, as the mental hospital records did not make a clear distinction among the three groups, organic disease, delirium and physical disease (admittedly a more usual classification).

The results of treatment were then studied under the headings used in Table II. A more detailed review was not thought necessary because it rapidly became apparent that to achieve the purpose of the study it was only necessary to have a general knowledge of the particular treatments used. The results achieved were mainly a function of the disease process present, and only minor variations in them were dependent on specific therapy.

When these preliminary surveys were completed, a follow-up study of all surviving patients was made. For a fairly large number this was a simple

\*Saskatchewan Hospital, Weyburn, Saskatchewan.

TABLE I.—GENERAL CHARACTERISTICS

		<i>Affective</i>	<i>Psycho- neurotic</i>	<i>Organic</i>	<i>Schizo- phrenic</i>	<i>Sen. and phys.</i>	<i>Total</i>
<i>General hospital patients</i>	Mean age (and range)	66 (60-74)	65 (60-76)	72 (61-87)	63 (62 and 64)	—	67 (60-87)
	Sex	11m-13f	6m-6f	7m-9f	Om-2f	—	24m-30f
	Diagnosis	24 (45%)	12 (22%)	15 (27%)	2 (4%)	1 (2%)	54 (100%)
	Length of stay (and range)	35 (14-71)	29 (11-66)	13 (1-70)	19 (2-36)	—	29 (1-71)
	Mean age (and range)	68 (60-82)	66 (62-70)	77 (61-93)	68 (60-81)	77 (63-91)	73 (60-93)
<i>Mental hospital patients</i>	Sex	12m-17f	4m-5f	44m-16f	5m-8f	12m-14f	77m-60f
	Diagnosis	29 (21%)	9 (7%)	60 (42%)	13 (10%)	26 (20%)	137 (100%)
	Length of stay (and range)	98 (4-322)	36 (17-64)	103 (10-265)	87 (19-123)	84 (7-340)	88 (4-340)
	Mean age (and range)	68 (60-82)	66 (62-70)	77 (61-93)	68 (60-81)	77 (63-91)	73 (60-93)

matter, since they remained in hospital or in close contact with a psychiatrist who was available for comment on their progress. To the remainder a simple questionnaire was directed. Again it was necessary to issue a second questionnaire to those who failed to respond to the first, and in this manner over 90% of the original sample were contacted. The results are listed in Table III.

Finally, when the results had been tabulated it was possible to make a statistical survey. In particular, attention was directed to any possible

portionately large number of senile and physically ill persons reported in the Saskatchewan group as noted in Table IV.

Again, when the Saskatchewan group was divided according to treatment facility, this difference remained apparent. In fact, it was even more noticeable since there was only one person clearly labelled under this group in the psychiatric unit and is so listed in Table I.

In addition, there was a significantly greater number of male patients with affective diseases

TABLE II.—CONDITION ON DISCHARGE—1957

		<i>Out of hospital</i>	<i>Remaining</i>	<i>Dead</i>	<i>Not traced</i>
<i>Psychiatric unit</i>	Male n-24.....	24 (100%)	—	—	—
	Female n-30.....	29 (97%)	—	1 (3%)	—
	Total n-54.....	53 (98%)	—	1 (2%)	—
<i>Mental hospital</i>	Male n-77.....	29 (39%)	12 (15%)	36 (46%)	—
	Female n-60.....	33 (55%)	13 (22%)	12 (20%)	2 (3%)
	Total n-137.....	62 (45%)	25 (18%)	48 (35%)	2 (2%)

difference between the total Saskatchewan sample and that of Canada as a whole. For this purpose Dominion statistics bearing on the problem were used.<sup>2</sup> The inter-relation between the two types of facility was then studied, the basis for the evaluation being possible differences in diagnostic categories, results at the time of discharge, and the status at the time of follow-up. The Chi-square technique was employed, using all five diagnostic categories in the classification table.

## RESULTS

In comparing the Saskatchewan sample with that for Canada as a whole it rapidly became apparent that there was a markedly significant difference between the groups. The greater part of this difference was due to the presence of a dispro-

admitted to the general hospital and a presumably complementing difference in the number of male patients with organic disease admitted to the mental hospital.

Considering the groups by improvement great enough to warrant discharge, a significant difference is shown (98% of the psychiatric unit but only 45% of the mental hospital sample).

Further, when the death rate is considered, a very significant difference is demonstrable between the male and female portions of the Saskatchewan group as a whole. Subdividing this group by sex and treatment facility, it is seen that the factor responsible is the greater number of deaths of the males admitted to mental hospital.

Finally, studying the results of the questionnaire to determine any differences in present status (con-

TABLE III.—CONDITION AT FOLLOW-UP—1959

		<i>Out of hospital</i>	<i>Remaining or readmitted</i>	<i>Dead</i>	<i>Not traced</i>
<i>Psychiatric unit</i>	Male n-24.....	13 (55%)	3 (12%)	6 (25%)	2 (8%)
	Female n-30.....	12 (40%)	9 (30%)	3 (10%)	6 (20%)
	Total n-54.....	25 (46%)	12 (23%)	9 (16%)	8 (15%)
<i>Mental hospital</i>	Male n-77.....	17 (23%)	17 (22%)	39 (50%)	4 (5%)
	Female n-60.....	20 (33%)	23 (38%)	14 (24%)	3 (5%)
	Total n-137.....	37 (27%)	40 (29%)	53 (39%)	7 (5%)

TABLE IV.—SASKATCHEWAN AND CANADA COMPARED BY DIAGNOSTIC GROUPS

		<i>Affective</i>	<i>Psycho- neurotic</i>	<i>Organic</i>	<i>Schizo- phrenic</i>	<i>Sen. and phys.</i>	<i>Total</i>
<i>Saskatchewan</i>	Male n-101	23 (23%)	10 (10%)	51 (51%)	5 (5%)	12 (12%)	101 (100%)
	Female n-90	30 (33%)	11 (12%)	25 (28%)	10 (11%)	14 (16%)	90 (100%)
<i>Canada</i>	Male n-3311	812 (25%)	548 (17%)	1568 (47%)	141 (4%)	105 (3%)	3174 (96%) other psychoses 4%
	Female n-3030	1126 (37%)	231 (8%)	1307 (43%)	186 (6%)	73 (2%)	2923 (96%) other psychoses 4%

sidering only the classifications—out of hospital, in hospital, and dead), another significant difference between the male patients is observed. The males admitted to the psychiatric unit seem better able to keep out of hospital. The liability for this is apparently divided between the remaining two groups—in hospital and dead; that is, neither one accounts for the difference in a significant manner. Considering the latter separately (a less valid technique statistically), there then appears to be a significant difference in favour of the men admitted to general hospital.

#### DISCUSSION

This study again brings to view many of the difficulties which have been noted in the care of the older psychiatric patient. The first problem, of course, must be one of diagnosis. Certainly the early recognition and treatment of physical disease as distinct from definite psychiatric syndromes, as seen in the disproportion between the statistics of our particular mental hospital and those for Canada as a whole, is a helpful step. However, in spite of the vigorous treatment given these unfortunate people by the admitting mental hospital, they still die—even more precipitously than their fellow psychiatric patients. They only serve to establish the correctness of the contention of those treating them, that they do not belong in the mental hospital but in a hospital more suited for the treatment of medical diseases.<sup>3</sup> The same seems to be true for even many of those who enter hospital diagnosed validly as predominantly psychiatric — they do poorly and seem only to have been rudely torn from their homes and brought to the mental hospital to die.<sup>4</sup>

Aside from the difficulty of separating the predominantly psychiatric from the physically ill, there is an added difficulty in the lack of a proper definition for the psychiatric syndromes which appear. In our study we have grouped the separate diagnoses, arteriosclerotic and senile psychoses, under the common heading of organic psychoses. The justification is, of course, that in most cases any other clinical diagnosis is impossible because of a liberal admixture of symptoms of both illnesses (if indeed two illnesses really exist).

The presence of large numbers of such organic mental illnesses in the geriatric population at times leads the unwary or rushed examiner into consider-

ing any old person with obvious mental symptoms as psychotic (and organic). The fallacy of such a conclusion is obvious from the figures presented from both facilities. There is a large percentage of non-organic conditions that respond well to treatment and bear a good prognosis.

Among those who improve in hospital and are discharged there appears the problem of maintaining improvement. Of those people, the male mental hospital patient shows a poor ability to remain out of hospital, as has been demonstrated. The females, on the other hand, show their overall ability to do better than males in survival and prognosis. This is not surprising because it is well known that the female is better equipped to last past the male life span in emotional and psychiatric aspects, as well as in general health patterns.<sup>5</sup>

Considering the groups as a whole, one remarkable aspect is the low number of previous admissions, i.e. the geriatric group seem to have postponed their emotional difficulties by the use of potent defences, and only the relentless stresses of old age (physical and mental) cause them to become ill.

Finally, the important finding in the present study (one noted previously) is the high number of initial mental hospital patients who remain in hospital at the time of follow-up and thus obviously in poor mental health. It is less obvious that they are in fair or good physical condition. Those who had a physical condition precipitating their psychosis are dead; the remainder are dependent on institutional care probably for the rest of their lives. This position makes them a real problem in mental hospital, since they require only custodial care. To give them this care requires extensive if not elaborate facilities, and probably it is for these people that most of the planning with respect to geriatric patients should be directed. Is it better for them and for the mental hospital that they remain there, or are separate facilities indicated?

#### SUMMARY

A comparison is made between two groups of geriatric psychiatric patients admitted to a general hospital psychiatric unit and a provincial mental hospital respectively during the year 1957. A survey of their general characteristics such as age, sex, diagnosis and length of stay was first made. The results of treatment were then tabulated, both for the time of discharge and at a follow-up time in mid-1959. A statistical

study was then performed to determine if valid differences existed between the two groups. The Chi-square method was the technique employed. A discussion follows which emphasizes the problems of diagnosis and the inevitability, under the present arrangements, of misdirection in the placement of the older person seeking psychiatric help, as well as some of the difficulties inherent in a steadily increasing geriatric population in mental hospitals.

We would like to thank Dr. Humphry Osmond for reviewing the article and for his permission to publish, and Dr. Robert Sommers for his assistance in the statistical evaluation and review.

## REFERENCES

1. GRUNBERG, F. AND WARD, T. F.: *Canad. M. A. J.*, 81: 360, 1959.
2. Canada, Bureau of Statistics, Institutions Section: Mental health statistics, report, 26th, 1957, Queen's Printer, Ottawa, 1959.

3. HORBACZEWSKI, J.: *Canad. M. A. J.*, 78: 22, 1958.
4. VAIL, D. J.: *Geriatrics*, 14: 734, 1959.
5. BOWMAN, K. M.: *Ibid.*, 14: 163, 1959.

## RÉSUMÉ

On a établi une comparaison entre deux groupes de malades gériatriques en traitement psychiatrique dont l'un avait été admis au département psychiatrique d'un hôpital général et l'autre à un hôpital provincial pour malades mentaux au cours de 1957. On a d'abord tenu compte de l'âge, du sexe, du diagnostic et de la durée du séjour de chacun d'entre eux. Les résultats du traitement furent aussi inscrits tant à l'époque de leur congé qu'à celle de l'examen de rappel au milieu de 1959. Une étude statistique fut alors entreprise afin de déterminer s'il existait des différences valides entre les deux groupes. Les données furent soumises à l'épreuve de chi-carré. Au cours de la discussion les auteurs soulignent les problèmes que posent le diagnostic et le placement (qui dans plusieurs cas est inévitablement faux) de ces vieillards en quête de soins psychiatriques. Ils insistent aussi sur les difficultés inhérentes à la gestion d'une population gériatrique croissante dans les institutions pour aliénés.

NÉURALGIE DU TRIJUMEAU  
ET HERPES SIMPLEX

MARCEL RHEAULT, M.D.,\*  
ANDRE PARENTEAU, M.D.,†  
PAUL-H. CREVIER, M.D., F.R.C.S.[C.],‡ et  
GIORGIO CARBONIN, M.D.,\* *Montreal*

AUSSI LOIN qu'on remonte dans l'histoire de la médecine, on retrouve des citations sur la névralgie du trijumeau. Galien connaissait cette pathologie. Déjà au XI<sup>e</sup> siècle, Avicenne la décrivait. Malgré son long passé et ses descriptions répétées, jamais on ne réussit à lui appliquer une étiologie satisfaisante. Le présent article n'a pas la prétention de mettre un point final à la recherche de la cause des névralgies du trijumeau, il ne veut que mettre en évidence une relation qui existe entre le tic douloureux et l'herpès simplex.

Du premier janvier 1956 au 31 décembre 1959, il y eut 80 hospitalisations à l'Hôtel-Dieu de Montréal pour tic douloureux du trijumeau. Ces 80 hospitalisations comprennent 72 patients, c'est donc dire que certains furent hospitalisés deux et même trois fois pour la même pathologie. De l'observation de ces patients, nous tenterons dans une première partie de relever les renseignements cliniques intéressants et dans une seconde nous discuterons la relation entre l'herpès et le tic douloureux du trijumeau.

## ASPECT CLINIQUE

## Fréquence

**Sexe:** Le sexe féminin semble plus touché que le sexe masculin. La proportion est d'environ deux

femmes pour un homme. Dans notre série de 72 patients, nous comptons 45 femmes et 27 hommes.

**Age:** La moyenne d'âge dans notre série était de 55 ans. Notre cas le plus jeune avait 17 ans et notre plus âgé, 80 ans. Une étude par décennie, nous montre une courbe qui répond bien à la courbe statistique de Lambert. Le maximum semble situé entre 50 et 70 ans. Trente-neuf de nos patients, soit 54%, avaient cet âge. C'est donc une maladie des dernières décennies.

NOMBRE DE PATIENTS

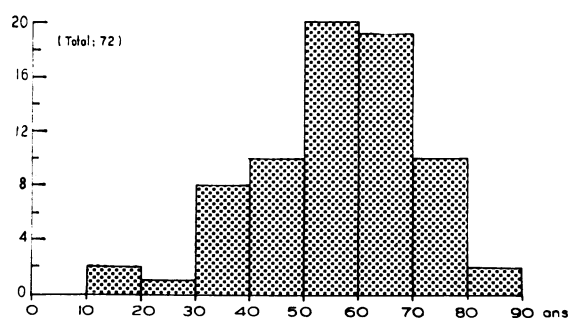


Fig. 1.—Fréquence selon l'âge.

**Saison:** La compilation de nos cas, nous a permis de trouver une fréquence saisonnière marquée de juin à septembre. Pour les quatre années, soit de 1956 à 1959, 47 patients furent traités pendant l'été, huit au printemps, 11 à l'automne et 14 à l'hiver. Il nous semble que ce décalage entre les saisons est beaucoup trop marqué pour n'être qu'un effet du hasard. Ainsi nous pensons que c'est surtout pendant l'été que les crises paroxystiques surviennent.

\*Résidents, Service de Chirurgie.

†Chargé de la Section Neuro-Chirurgie, Service de Chirurgie.

‡Neuro-Chirurgien. Tous de l'Hôtel-Dieu de Montréal.